

h-transporterORF	1:ATGAATAGGGCCCTCTGAAGCGGTCAGGATCCTGCAATGGCGTACCGGGCCCTCA	60
m-transpoterORF	1:-----ATGGCGTGAAGTCTCT	21
	*****	
h-transporterORF	61:GACCCCTCTGCAGAGGCAGAGGCCAACGGGAGAGCCCTTCTGCTGCGGGCATTCAG	120
m-transpoterORF	22:GCTGTCTCCGAGGAGTCAGAGAGCGGGAACA--AGCCATTCTGCTCCGGGCTCTGCAG	78
	* ** * ** * ** *	
h-transporterORF	121:ATCGCGCTGGTGGTCTCCCTCTACTGGGTACCTCCATCTCCATGGTGTTCCTTAATAAG	180
m-transpoterORF	79:ATCGCGCTGGTGGTCTCTCTACTGGGTACCTCCATTCCATGGTATTCTCTCAACAAG	138
	*****	
	↑	
h-transporterORF	181:TACCTGCTGGACAGCCCTCCCTGGGCTGGACACCCCATCTTCGTACCTTCTACCAG	240
m-transpoterORF	139:TACCTGCTGGACAGCCCTCCCTGAGCTGGATACCCCATTTTGTACCTTCTACCAA	198
	*****	
h-transporterORF	241:TGCCTGGTGACACCGCTGCTGTGAAAGGCCTCAGCGTCTGGCGCCTGCTGCCCTGGT	300
m-transpoterORF	199:TGCCTGGTGACCTCACTGCTGTGAAGGGCCTCAGACTCTGGCCACCTGCTGCCCGGC	258
	*****	
h-transporterORF	301:GCCGTGGACTTCCCGAGCTTGGCGCTGGACCTCAGGGTGGCCCGCAGCGTCTGCCCCCTG	360
m-transpoterORF	259:ATGGTAGACTTCCCGACCTTAACCTGGACCTCAAGTGGCCCGAAGTGTGTCGCGCTG	318
	** ***** *	
h-transporterORF	361:TCGGTGGTCTTCATCGGCATGATACCTTCAATAACCTCTGCCTCAAGTACGTCGGTGTG	420
m-transpoterORF	319:TCAGTGGTCTTTATCGGCATGATAACCTTCAATAACCTCTGCCTCAAGTACGTAGGGGTG	378
	** *****	
h-transporterORF	421:GCCTTCTACAAATGTGGCGGCTCACTCACCACCGTCTTCAACGTGCTGCTCTCCTACCTG	480
m-transpoterORF	379:CCCTTCTACAACTGGGACGCTCGCTCACCACCGTGTCAACGTTCTTCTCTCCTACCTG	438
	*****	
h-transporterORF	481:CTGCTCAAGCAGACCACCTCCTTCTATGCCCTGCTCACCTGCGGTATCATCATCGGGGGC	540
m-transpoterORF	439:CTGCTCAAACAGACCACCTTCCTTCTATGCCCTGCTCACCTGCGGCGTCATCATTTGGTGT	498
	*****	
h-transporterORF	541:TTCTGGCTTGGTGTGGACCAGGAGGGGGCAGAGGACCCCTGTGCTGGCTGGGCACCGTC	600
m-transpoterORF	499:TTCTGGCTGGGTATAGACCAAGAGGACCTCAGGAGGAGGCTATTCCTGACGCGGCACCATC	558

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h-transporterORF 601:TTTCGGCGTGTGGCTAGCCTCTGTGTCTCGCTCAACGCCATCTACACCACGAAGGTGCTC 660  
m-transporterORF 559:TTTCGGGGTGTGGCCAGCCTCTGGGTCTCCCTCAATGCCATCTATACCAAGAAGGTGCTC 618  
\* \* \* \* \* 601:TTTCGGCGTGTGGCTAGCCTCTGTGTCTCGCTCAACGCCATCTACACCACGAAGGTGCTC \* \* \* \* \*  
h-transporterORF 661:CCGGCGGTGGACGGCAGCATCTGGCGCCTGACITTTCTACAACAACGTCAACGCCTGCATC 720  
m-transporterORF 619:CCTGCAGTAGACACACAGTATCTGGCGCCTAACCTTCTATAACAATGTCAATGCCTGCGTG 678  
\* \* \* \* \* 661:CCGGCGGTGGACGGCAGCATCTGGCGCCTGACITTTCTACAACAACGTCAACGCCTGCATC \* \* \* \* \*  
h-transporterORF 721:CTCTTCCTGCCCTGCTCCTGCTGCTCGGGAGGTTTCAGGCCCTGGTGACTTTGCCCAG 780  
m-transporterORF 679:CTCTTCTTGCCCTGATGATAGTGTGGCGAGTCCGTGCCCTCCTGGCCTTTCACATCAT 738  
\* \* \* \* \* 721:CTCTTCCTGCCCTGCTCCTGCTGCTCGGGAGGTTTCAGGCCCTGGTGACTTTGCCCAG \* \* \* \* \*  
h-transporterORF 781:CTGGGCGAGTGCCCACTTCTGGGGGATGATGACGCTGGCGGCGCTGTGGCTTTGCCATC 840  
m-transporterORF 739:CTGAGCAGTGCCCACTTCTGGCTCATGATGACGCTGGTGGCTGTGGCTTTGCCATC 798  
\* \* \* \* \* 781:CTGGGCGAGTGCCCACTTCTGGGGGATGATGACGCTGGCGGCGCTGTGGCTTTGCCATC \* \* \* \* \*  
h-transporterORF 841:GGCTACGTGACAGGACTGCAGATCAAGTTCACCAGTCCGCTGACCCACAATGTGTGCGGC 900  
m-transporterORF 798:GGCTATGTGACAGGACTGCAGATCAAAATTCACCAGTCCCTGACCCATAACGTGTCAAGC 858  
\* \* \* \* \* 841:GGCTACGTGACAGGACTGCAGATCAAGTTCACCAGTCCGCTGACCCACAATGTGTGCGGC \* \* \* \* \*  
h-transporterORF 901:ACGGCCAAGGCTGTGCCACACAGTGTGGCGGTGCTCTACTACGAGGAGACCAAGAC 960  
m-transporterORF 859:ACGGCCAAGGCTGTGCACACACAGTGTGGCGGTGCTCTACTACGAAGAGATTAAAGC 918  
\* \* \* \* \* 901:ACGGCCAAGGCTGTGCCACACAGTGTGGCGGTGCTCTACTACGAGGAGACCAAGAC \* \* \* \* \*  
h-transporterORF 961:TTCTCTGTGTGGACGAGCAACATGATGGTGTGGCGGCTCCTCCGCCCTACACCTGGGTC 1020  
m-transporterORF 919:TTCTCTGTGTGGACAGCAACCTGATGGTGTGGGTGGCTCCTCCGCCCTACACCTGGGTC 978  
\* \* \* \* \* 961:TTCTCTGTGTGGACGAGCAACATGATGGTGTGGCGGCTCCTCCGCCCTACACCTGGGTC \* \* \* \* \*  
h-transporterORF 1021:AGGGGCTGGGAGATGAAGAGACTCCGGAGGAGCCAGCCCCAAAGACAGCGAGAAGAC 1080  
m-transporterORF 979:AGGGGCTGGGAGATGCAGAAGACCCAGGAGGACCCAGCTCCAAAGATGGTGAGAGAGT 1038  
\* \* \* \* \* 1021:AGGGGCTGGGAGATGAAGAGACTCCGGAGGAGCCAGCCCCAAAGACAGCGAGAAGAC \* \* \* \* \*  
h-transporterORF 1081:GCCATGGGGGTGTGA 1095  
m-transporterORF 1039:GCTATCAGGGTGTGA 1053  
\* \* \* \* \* 1081:GCCATGGGGGTGTGA \* \* \* \* \*

For RT-PCR  
Forward primer: TGCAGATCGCGCTGGTGGTCTC  
Reverse primer: GCCCCTGACCCAGGTGTAGGC

gattcggaagagcgctccgcttcccacggggtcccgaccctgttctttccctcctccacccctgccccttctgtccctctcccttcccttt  
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Forward primer: TGCAGATCGCGCTGGTGGTCTC

Reverse primer: GTCCTTCTTGGTCTATACC

3' side

Forward primer: AGACCACTTCCTTCTATGCC

Reverse primer: GCCCCTGACCCAGGTAGGC

Fig. 3

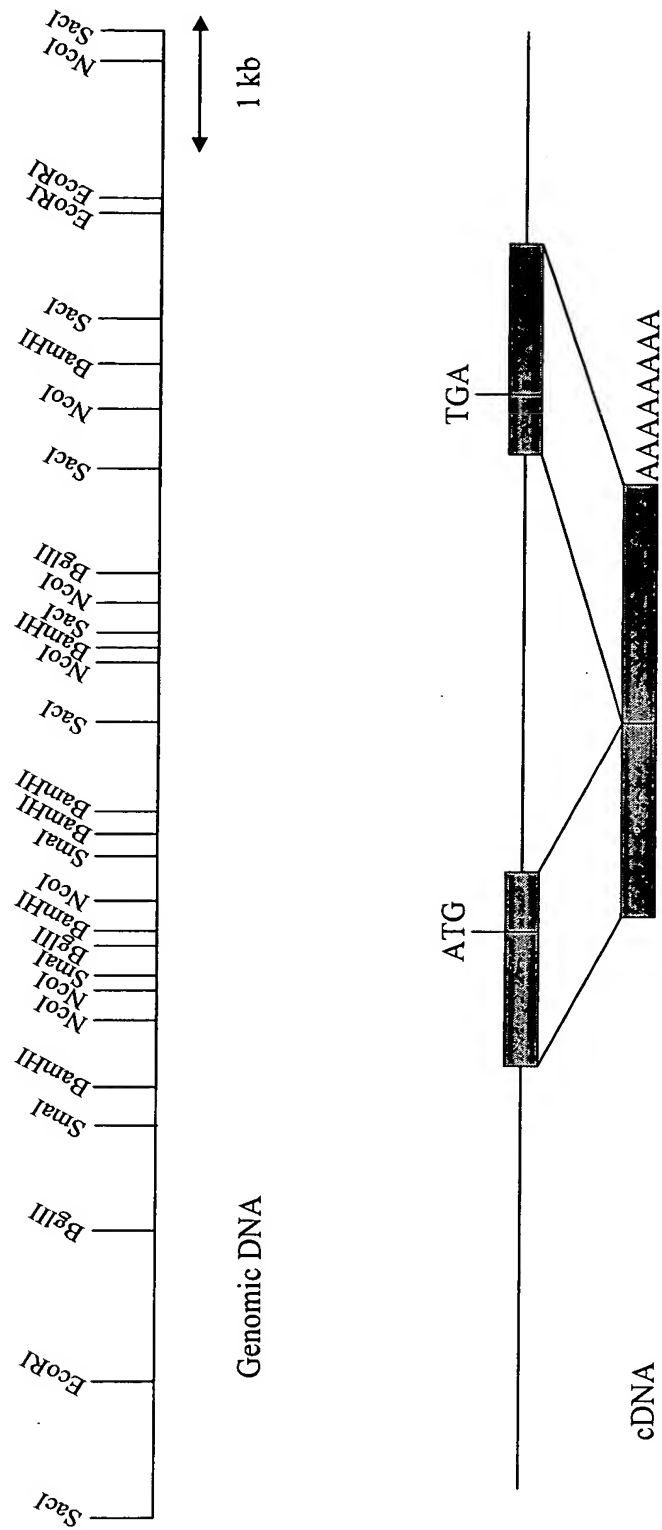


Fig. 4-1

[illegible]

Fig. 4-2

[illegible]

Fig. 4-3

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GCCAGTGTGGCCCTGAGCAATACTGTTTACATCCTCCTTGGAAATATGATCTAAGAGGAGCCAGGCTTTTCTCTGGTAATGTCAAGAAAGTGCCTGCAAAATCTC  
CTGTCTGCCCATCTTGTTTTGGGAAACCCCTACAGGAATGGCACCCCTACCTGCTCCTCTAGAGCCTGTCTACCTCCATATCATCTCTGGGGTTGGG  
ACCAGCTGCAGCCTTAAGGGCTGGATTGATGAAGTGTGCTTCTACACAAGGAGATGGGTGTGATCCCACTAATTGAAGGGATTGGGTGACCCC  
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Fig. 5

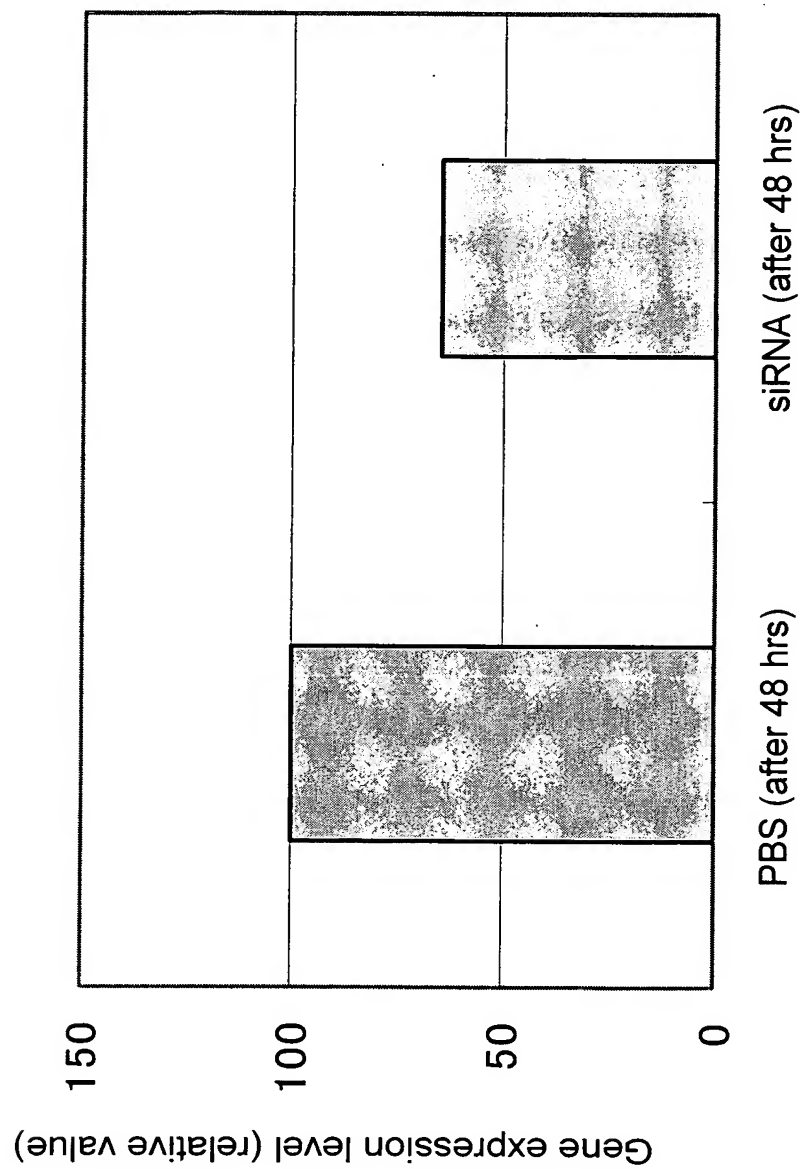




Fig. 6

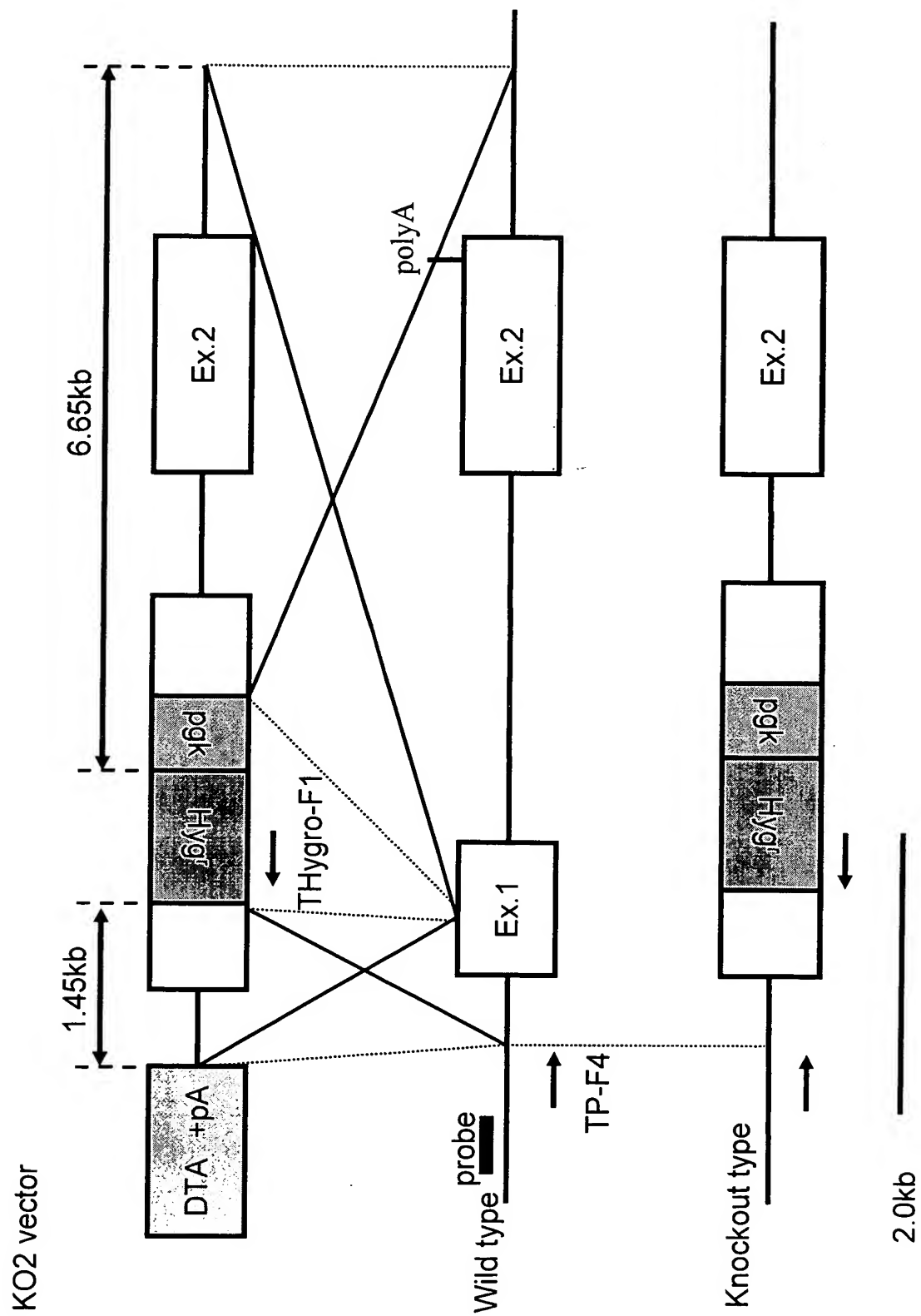


Fig. 7

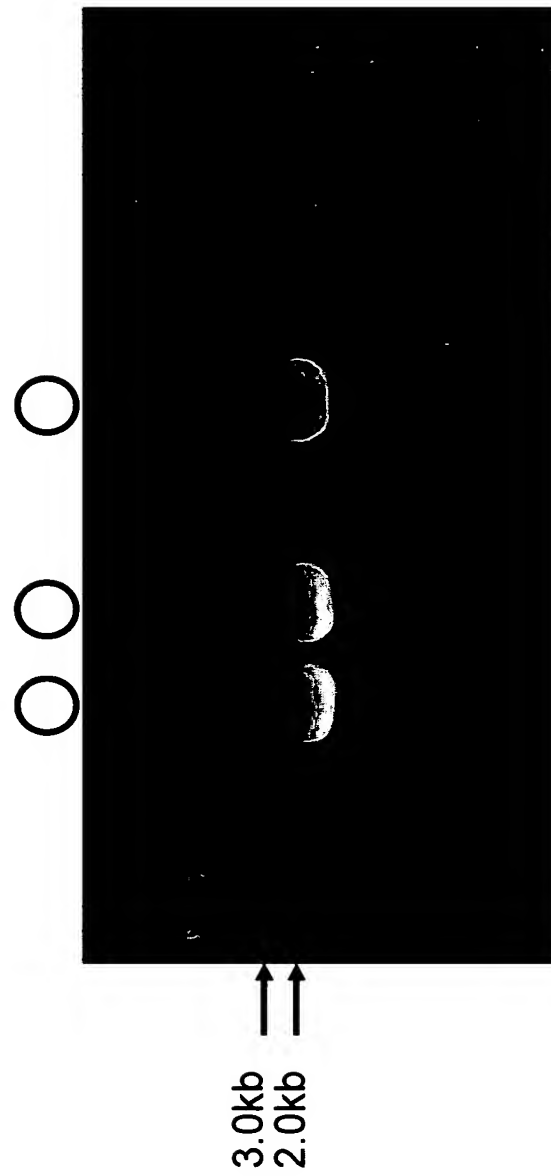
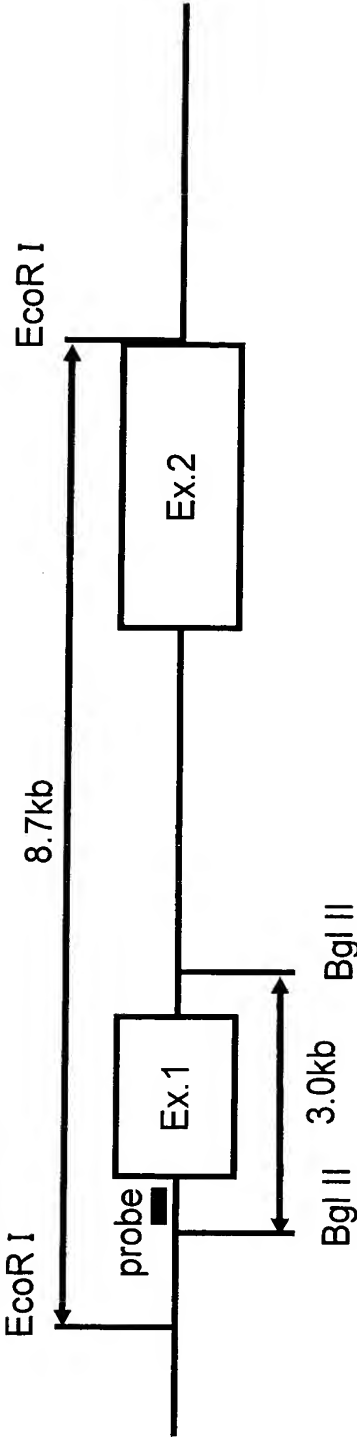


Fig. 8

Wild type



Knockout type

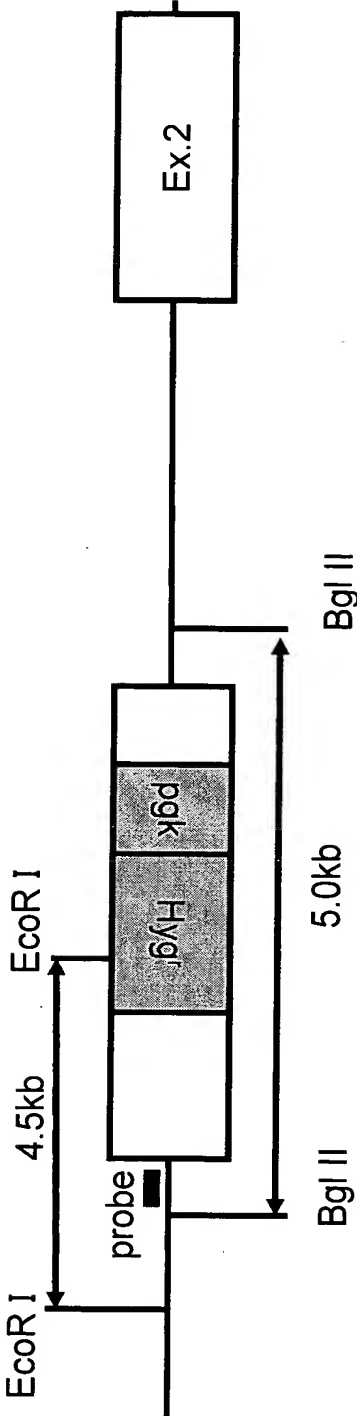
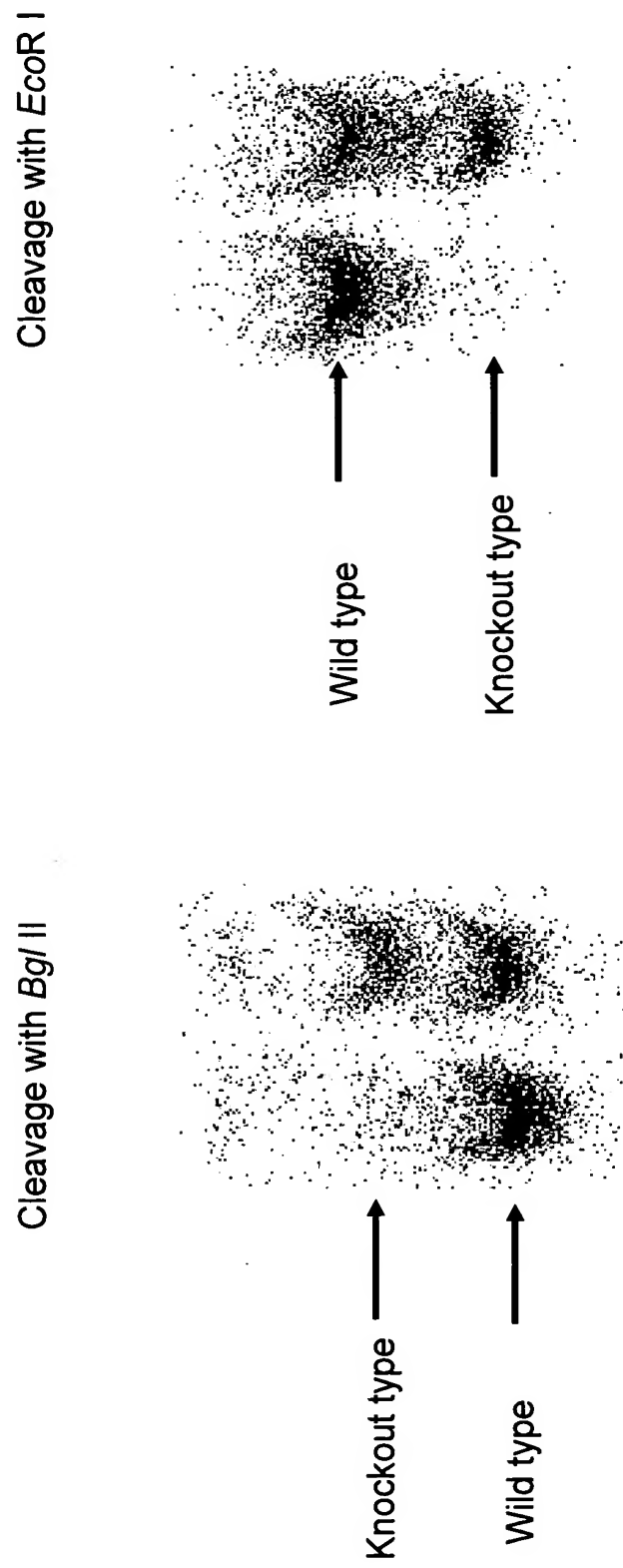


Fig. 9



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